

100

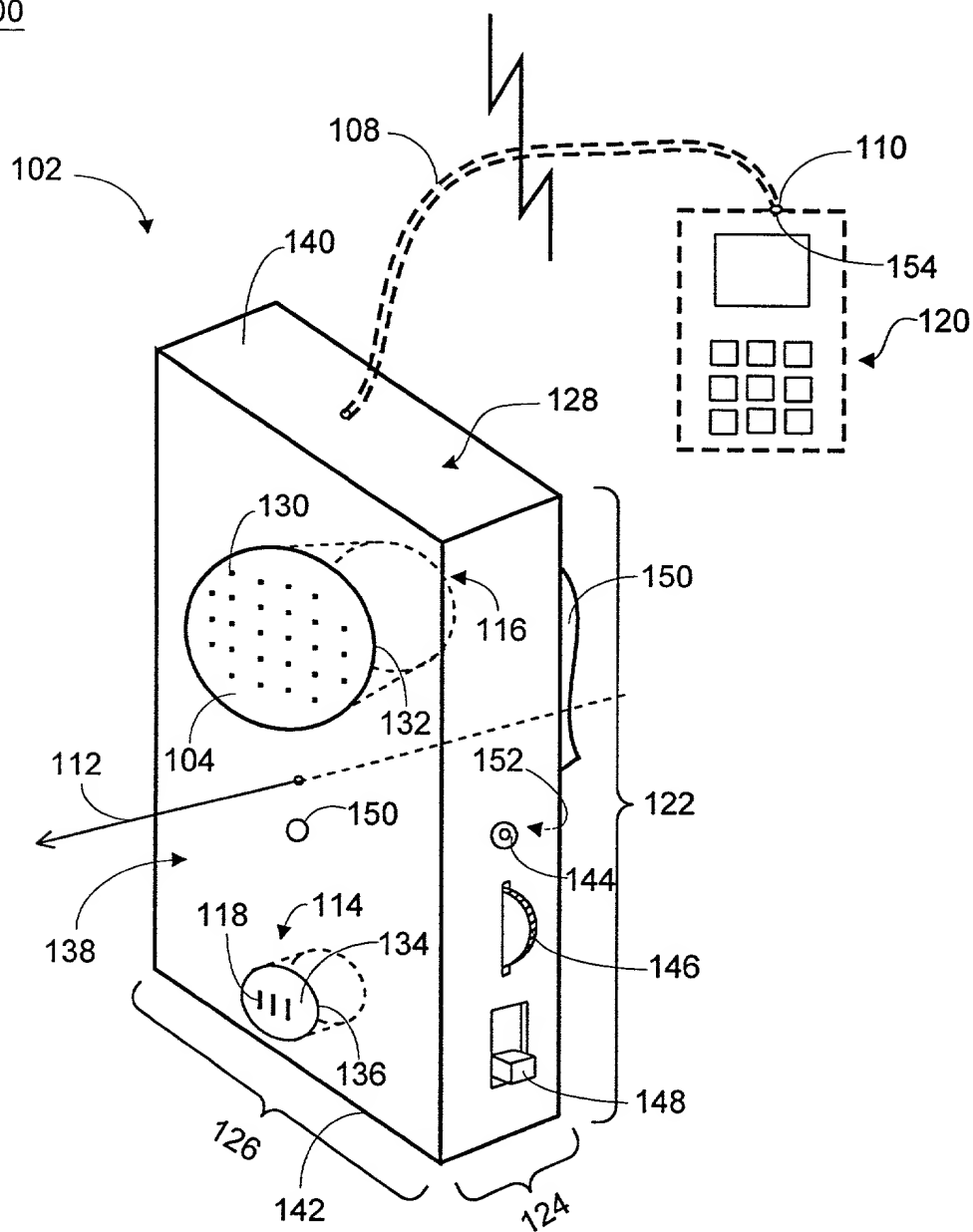


FIG. 1

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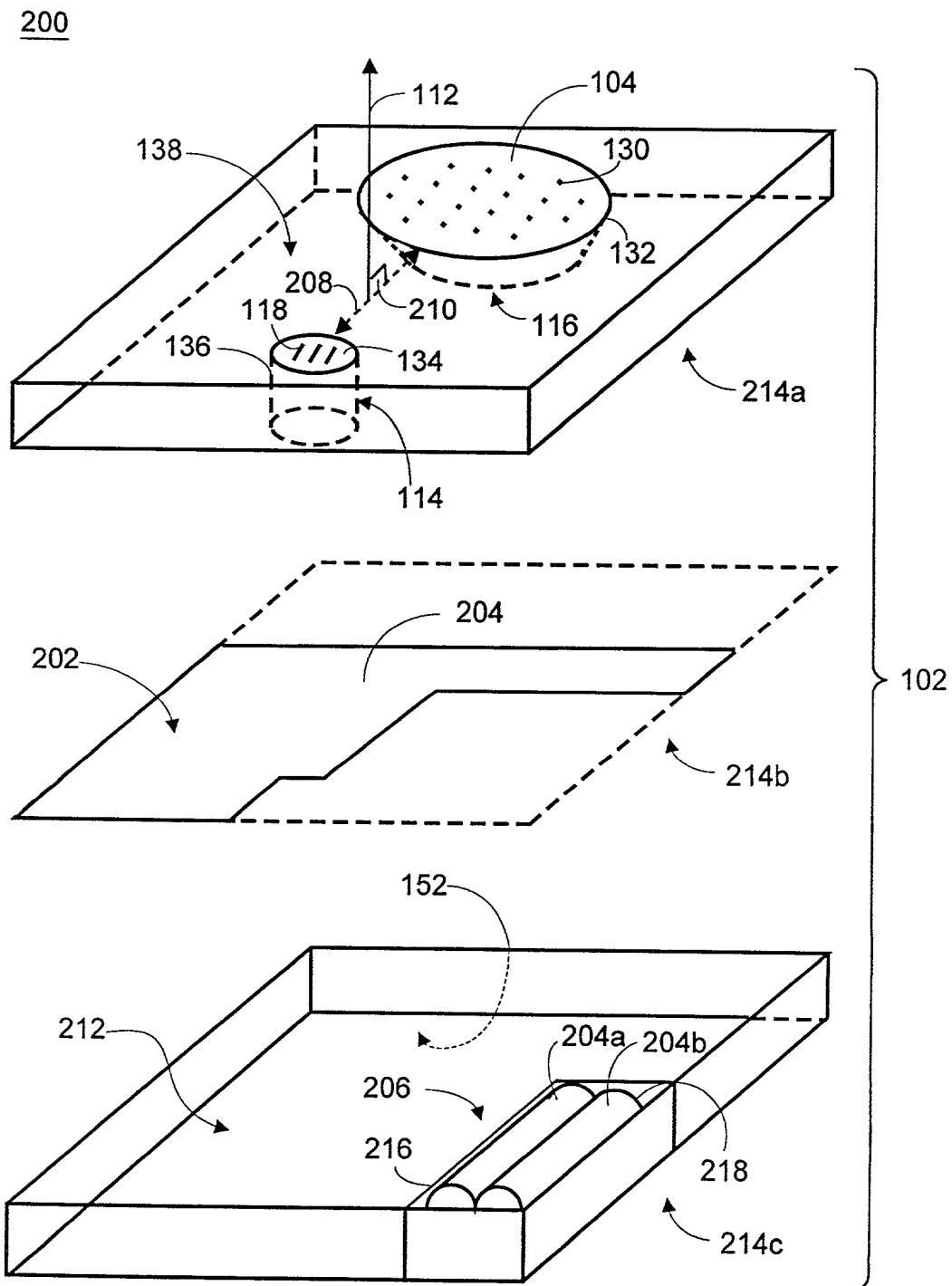


FIG. 2

FIG. 3

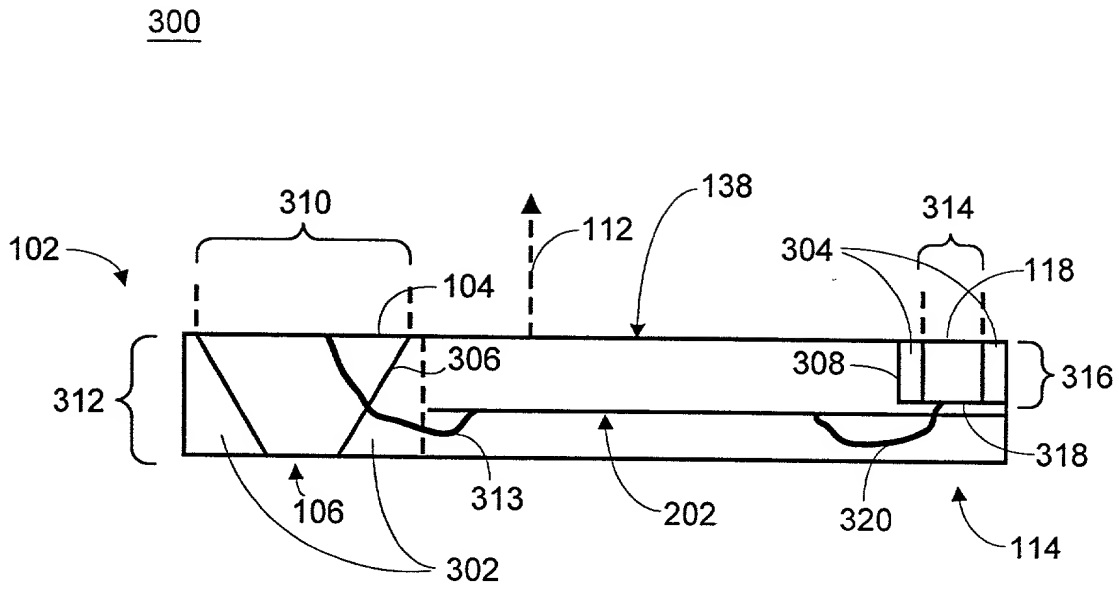
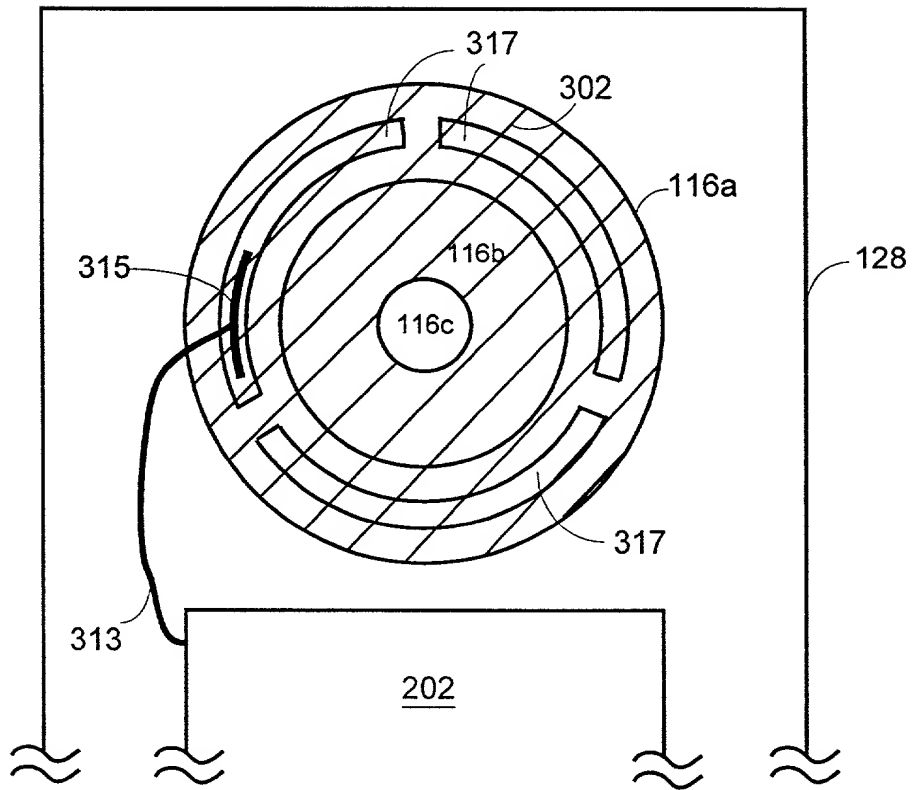


FIG. 3

FIG. 3A



**FIG. 3A**

The diagram illustrates a mobile phone system 400. It includes a microphone ECM 114 connected to a microphone amplifier Q1 420. The output of Q1 420 goes to a variable electronic attenuator Q2 414. Q2 414 is controlled by a control signal amplifier U1 406, which receives input from a signal to voltage converter D4 412. The output of Q2 414 is connected to a 2P3T switch 424. The switch 424 has three positions: HI, LOW, and OFF. The HI position connects to a speaker amplifier U1 408, which drives a speaker 116. The LOW position connects to a power indicator D3 LED 150. The OFF position connects to ground. The system is powered by a battery 204 (1.5V X 2 PCS) connected to a low drop out voltage regulator Q3 424. The regulator Q3 424 is also connected to an external DC jack 114. A 2.5mm plug is connected to the system for external power or data transfer.

FIG. 4

500

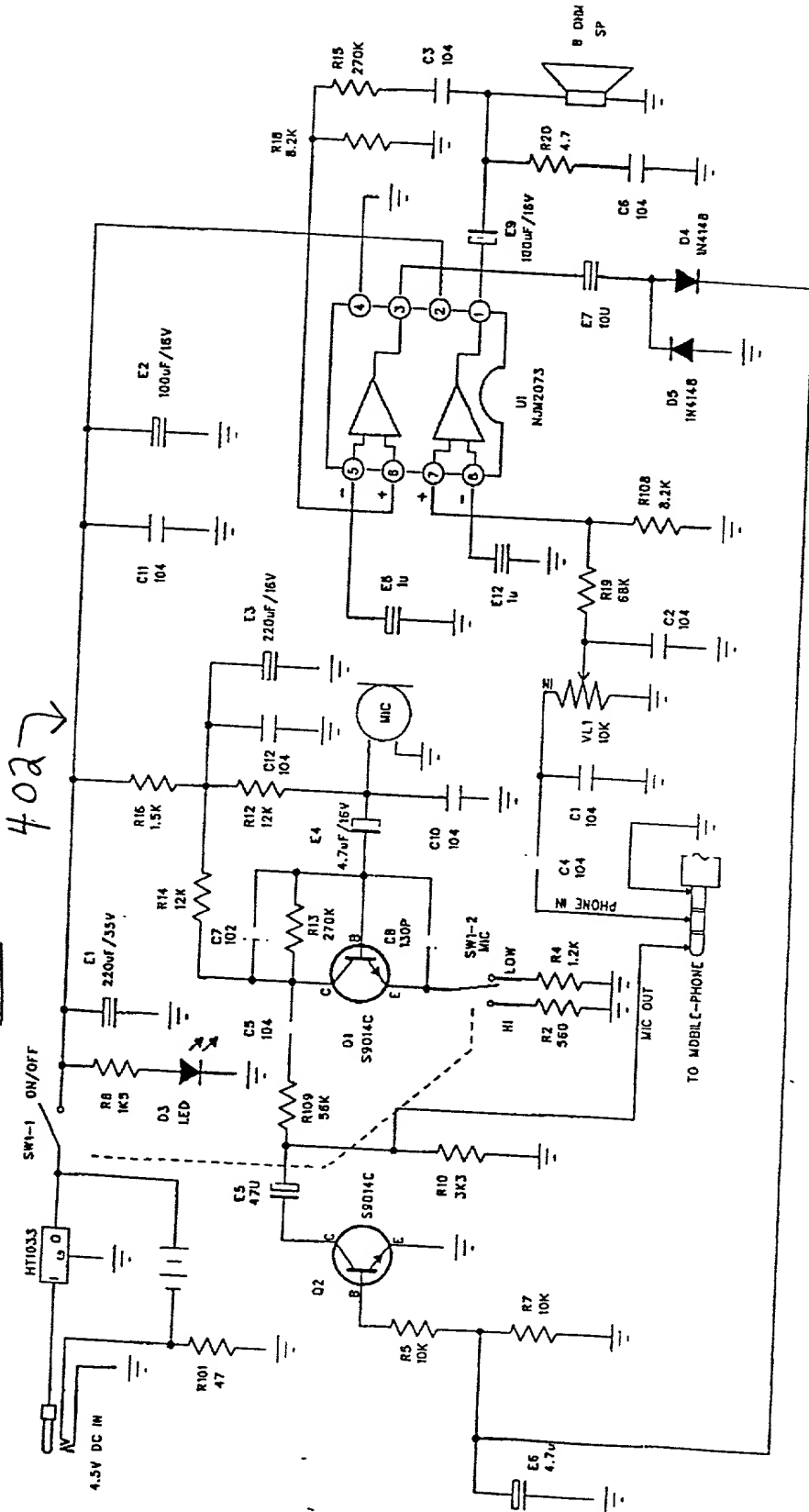


FIG. 5